

EDAM

EXTENDED DAY-AHEAD MARKET

TARIFF FRAMEWORK

OUTLINE

September 15, 2022

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1. Introduction

The California Independent System Operator Corporation (ISO), as part of its proposal to extend its day-ahead market to interested entities in the Western Energy Imbalance Market (WEIM), will include the applicable rules in a discrete part of the ISO tariff similar to how the WEIM tariff rules are reflected in the ISO tariff. This paper presents an Extended Day-Ahead Market (EDAM) tariff framework outline that lays the foundation for the draft ISO tariff language to follow. This framework will support, but not prescribe, EDAM entity consideration of transmission service OATT amendments required to implement the EDAM in each WEIM entity balancing authority area that participates.

This outline is based on the EDAM Revised Straw Proposal dated August 16, 2022 and breaks down the elements of the EDAM proposal into its discrete components, reorganizing this information into a structure that mirrors the existing ISO tariff numbering scheme in the currently blank section 33 of the ISO tariff.¹ For example, provisions related to EDAM market operation would be included in subsection 33.31 to mirror the existing day-ahead market provisions found in section 31 of the ISO tariff.² We have included EDAM-specific headings from the revised straw proposal to help identify discrete concepts and distinctions among the various component parts of the proposal. The tariff framework outline is inherently illustrative and may not include all elements of the design ultimately included in the final proposal.

The next step will be publication of a tariff framework to incorporate updated concepts from the draft final proposal and include language that more completely captures each topic with language that more closely matches the format of tariff language. This step, however, may not fill in all areas that may require additional detail, consider the extent to which some material may be more appropriately included in a business practice manual, or fully develop all of the elements required to represent draft tariff language. These additional steps will occur in the third step of the tariff process, *i.e.*, the transition from the framework to draft tariff language.

The draft tariff language is targeted for publication in the first quarter of 2023, and it will be based on the final EDAM proposal, which is targeted for publication in late 2022 and consideration by the WEIM Governing Body and Board of Governors at a meeting in December 2022. We believe that considering this tariff framework as a first and second step in the tariff development process will help stakeholders better understand how the EDAM rules will be structured and incorporated into the ISO tariff. In turn, this will help prospective EDAM entities understand the scope of the commitment and how they may need to amend their respective OATTs to support EDAM participation.

¹ This framework is presented as section 33 of the ISO tariff because this section is “not used” in the general ISO tariff, while the real-time market WEIM tariff rules remain in section 29.

² Other sections and appendixes of the ISO tariff that may require modification are also included in the outline to more fully reflect the structure and scope of potential tariff changes.

2. Guiding Objectives for the Tariff Framework

In developing the EDAM tariff framework, the ISO pursued four objectives:

- a. **Clarity:** The tariff framework should offer a clear guide to the sections and subjects of the ISO tariff applicable to the EDAM. This will ensure stakeholders and potential participants in EDAM understand the scope of the ISO tariff under review and the general requirements for participation.
- b. **Consistency:** The tariff framework should reference provisions in the current ISO tariff that apply equally to the EDAM and to current market participants. This will reduce redundancy and the potential for inconsistency between rules that apply to all market participants and the rules that apply only to EDAM participants.
- c. **Comprehension:** The tariff framework should provide an opportunity for stakeholders to comprehend the relationship between the market design and the anticipated tariff provisions. This will facilitate identifying rules that may be missing and need further definition.
- d. **Certainty:** The tariff framework should provide a reference point for application of the associated market design elements and the scope of the EDAM governance design being considered in parallel with this initiative.³

³ The tariff framework does not represent the views of the Governance Review Committee, the WEIM Governing Body, or the CAISO Board of Governors with respect to governance or the EDAM design.

3. Tariff Framework Rules of Construction

This section describes the relationship between the EDAM tariff rules, the ISO tariff rules, and EDAM participant OATTs. The ISO provides this to help stakeholders understand these relationships prior to presenting the draft ISO tariff provisions.

3.1. EDAM Specific Rules

The EDAM rules will be part of the ISO tariff – not a separate tariff. This means the EDAM rules will apply equally to all participants no different than any other provision of the ISO tariff. However, the EDAM rules may be limited in their application through the use of appropriately defined terms, specific references, or exclusions. Participating EDAM entities will amend their OATTs to reflect the EDAM tariff rules.⁴ The EDAM rules included in an OATT will provide for EDAM transmission service and other related matters not addressed in the ISO tariff, and they will defer to the ISO tariff concerning EDAM matters addressed in the ISO tariff. In the event of a conflict between an EDAM entity OATT and an EDAM rule in the ISO tariff, the provisions of the ISO tariff will govern over the OATT provisions to the extent of any inconsistency.

3.2. ISO Tariff General Rules

Generally applicable provisions of the ISO tariff will apply to EDAM participants. For example, all participants in the EDAM will be considered “market participants” and all ISO tariff provisions applicable to market participants will apply to EDAM participants unless otherwise specifically excluded. Likewise, an EDAM scheduling coordinator will be considered a “scheduling coordinator,” and all ISO tariff provisions applicable to scheduling coordinators will apply unless otherwise specifically excluded.

3.3. EDAM Specific Agreements

All agreements necessary for participation in the EDAM will be *pro forma* service agreements included within the ISO tariff. To the greatest extent possible, operative provisions will be included in the ISO tariff and incorporated by reference. These service agreements will be considered through the tariff stakeholder process and will not be individually negotiated.⁵ Accordingly, the ISO encourages stakeholders to comment on these agreements when published as part of the draft tariff language.

⁴ Ideally, the ISO and potential EDAM entities will collectively develop a common set of OATT provisions that address EDAM transmission service issues that the CAISO tariff defers to the OATT. Understanding differences among EDAM entities will nevertheless be appropriate to address operational and customer related issues unique to their balancing authority area. This coordination and collaboration should be considered further as the EDAM market design development continues.

⁵ Specific provisions accepted by FERC regarding WEIM participation by public power entities and federal entities will be extended to their EDAM participation as appropriate. Consideration of whether these provisions can be included as alternative *pro forma* language and avoid Commission filings of non-confirming agreements for known issues will be undertaken in the tariff development process.

4. EDAM Tariff Framework – Outline

The ISO tariff framework outline below is based on the EDAM revised straw proposal dated August 16, 2022. Our objective at this stage is to establish a solid foundation and common understanding upon which the initial EDAM tariff rules will be drafted and presented for further comment. This initial outline will transform into a complete tariff framework based on the draft final proposal, and followed by initial draft tariff language based on the final proposal. We welcome initial stakeholder comments and suggestions regarding this proposed outline as part of any comments on the revised straw proposal, which are due on September 26, 2022, although, we do not anticipate engaging in a formal comment process at this early stage. We will consider comments as we move from the tariff outline to the framework. The tariff development stakeholder initiative will start with publication of the complete tariff framework based on the draft final proposal according to the overall initiative timeline published on the ISO website.

The ISO tariff framework outline is formatted to assist in understanding the organization and ultimate scope of the EDAM rules, including the relationship with generally applicable ISO tariff rules and, specifically, the ISO tariff rules applicable to the EDAM. Each section heading aligns with a corresponding section of the general ISO tariff rules and the specific EDAM rules. Following each heading is a short narrative that describes this relationship, where appropriate, and provides some context for the scope of rules that will be included in each section. Next, we have included an italicized parenthetical noting that additional development is underway and which section of the EDAM rules may be referenced as relevant for this effort. Finally, in blue text, we have referenced some section headings of the EDAM revised straw proposal to illustrate for context where some discrete elements of the proposal would be included. Each of these outlined areas will be further developed and organized in the complete tariff framework based on the EDAM draft final proposal.

33 Extended Day-Ahead Market

33.1 General Provisions

Participation, operation, and settlement of the EDAM will be subject to the provisions of CAISO Tariff Section 33, and to all other provisions of the CAISO Tariff to the extent those provisions are, by their terms, applicable to the EDAM. The provisions of Section 33 will apply only to the EDAM.

EDAM Market Participants will comply with the provisions of Section 33, and other applicable provisions of the CAISO Tariff to the extent such provisions expressly refer to Section 33 or EDAM Market Participants, are cross referenced in Section 33, or are not limited in applicability to the CAISO Controlled Grid, the CAISO Balancing Authority Area, or CAISO Markets other than the Day-Ahead Market.

If there is an inconsistency between a provision in Section 33 and another provision of the CAISO Tariff regarding the rights or obligations of EDAM Market Participants, the provision in Section 33 will prevail to the extent of the inconsistency.

[The scope of rules applicable to EDAM Market Participants and the EDAM more broadly will be further considered and set forth in Section 33.1 similar to the content and structure of the WEIM tariff Section 29.1]

Transitional Protective Measure: The CAISO may within 60 days following implementation of an EDAM Entity temporarily suspend participation of that entity in the EDAM or operation of the EDAM in the broader EDAM Area in response to unexpected market or system operational issues.

33.2 Access To EDAM

The CAISO will provide open and non-discriminatory access to the Day-Ahead Market, including the EDAM, in accordance with the provisions of the CAISO Tariff.

A Balancing Authority that wishes to become an EDAM Entity must first execute an EDAM Implementation Agreement with the CAISO that establishes the implementation date, an obligation to sign an EDAM Entity Agreement, the onboarding fee for its implementation, and the scope of work required for its participation in the EDAM.

[The specific readiness process of EDAM Entities will be further considered and set forth in Section 33.2 similar to the content and structure of the WEIM tariff Section 29.2]

Voluntary Participation Model: A WEIM Entity can choose to participate in the EDAM or continue to participate solely in the WEIM. A prospective EDAM Entity may terminate its EDAM Implementation Agreement at any time and for any reason (notice is required and the termination provisions for the EDAM Entity Agreement are discussed below).

Transitional Protective Measure: A prospective EDAM Entity may request a change in the implementation date to account for changes in circumstances.

33.3 [Not Used]

The provisions applicable to transmission facilities owned by a Local Furnishing PTO or other Tax-Exempt PTO in CAISO Tariff Section 3 do not apply to the EDAM.

[Consider EDAM specific issues that may need to be addressed and do not otherwise fit well within the context of another subsection of Section 33]

33.4 Roles And Responsibilities

Nothing in Section 33 will alter the CAISO's responsibilities under the other sections of the CAISO Tariff, under any agreement not required by Section 33, or under NERC Reliability Standards or any other Applicable Reliability Criteria as the Balancing Authority for the CAISO Balancing Authority Area and the transmission operator for the CAISO Controlled Grid. During any interruption of the normal operation of the Day-Ahead Market, the CAISO as Balancing Authority will remain responsible for managing the resources in its Balancing Authority Area and the flows on transmission lines internal to the CAISO Balancing Authority Area, including imports and exports, for the duration of the interruption.

Nothing in Section 33 will alter an EDAM Entity's responsibilities under NERC Reliability Standards as the Balancing Authority for the EDAM Entity Balancing Authority Area and, to the extent applicable, as the transmission operator for transmission facilities within its Balancing Authority Area. During any interruption of the normal operation of the Day-Ahead Market, the EDAM Entity as Balancing Authority will remain responsible in accordance with Section 33.7 for managing the resources in its Balancing Authority Area and the flows on internal transmission lines, including imports into and exports out of its Balancing Authority Area, for the duration of the interruption.

[The specific roles and responsibilities of EDAM Market Participants will be further considered and set forth in Section 33.4 similar to the content and structure of the WEIM tariff Section 29.4]

Voluntary Participation Model: An EDAM Entity may exit EDAM by terminating its EDAM Entity

Agreement with six months notice. No exit fees will apply.

Resource Participation Model: All resources within the EDAM Entity Balancing Authority Area will participate in the market – both day-ahead and real-time – by submitting either economic bids or self-schedules.

Concept of “Base Scheduling” and the EDAM: The EDAM will not support base scheduling of resources as in the WEIM today.

33.5 [Not Used]

The provisions applicable to black start and system restoration in Section 5 do not apply to the EDAM.

[Consider EDAM specific issues that may need to be addressed and do not otherwise fit well within the context of another subsection of Section 33]

33.6 Communications

Section 6 will govern communications and information availability regarding the participation of EDAM Market Participants in the Day-Ahead Market, except as Section 33.6 specifically provides.

[The specific communication protocols and requirements of EDAM market participants will be further considered and set forth in Section 33.6 similar to the content and structure of the WEIM tariff Section 29.6]

33.7 EDAM Operations Under Normal And Emergency Conditions

Section 7 of the CAISO Tariff will not apply to EDAM Market Participants; rather, the specific provisions of Section 33.7 will apply to EDAM Market Participants.

The CAISO will administer the transmission capacity made available to the Day-Ahead Market to support transfers of Energy and Imbalance reserves in the EDAM Area under normal operations. The CAISO will not issue Dispatch Instructions to an EDAM Entity Scheduling Coordinator for Load or Demand that has not been bid into the Day-Ahead Market. The CAISO will not issue Dispatch Instructions to an EDAM Resource Scheduling Coordinator for Supply or Imbalance Reserves that have not been bid into the Day-Ahead Market.

The EDAM Entity may issue an EDAM Manual Dispatch to an EDAM Resource in its Balancing Authority Area, outside of the Market Clearing of the Day-Ahead Market, and enforce Transmission Constraints when necessary to address issues in the EDAM Entity Balancing Authority Area that the CAISO is unable to address through normal economic Dispatch and Congestion Management. The EDAM Entity will immediately inform the CAISO of the EDAM Manual Dispatch and if the EDAM Entity Balancing Authority Area is under manual operation. Upon receiving notice of an EDAM Manual Dispatch, the CAISO will reflect the EDAM Manual Dispatch in the Day-Ahead Market.

[The specific procedures under normal and emergency conditions applicable to the CAISO and EDAM market participants will be further considered and set forth in Section 33.7 similar to the content and structure of the WEIM tariff Section 29.7]

Transitional Protective Measure: Participation in the EDAM may be interrupted when, in the CAISO’s judgment, operational circumstances have caused or are likely to cause abnormal system conditions that require immediate action to maintain system reliability or there is a communication failure that prevents EDAM Entity access to CAISO systems.

Confidence in Transfers: EDAM Transfers will have a priority equal to load throughout stressed, “edge,” or “corner” case conditions, when neither the market nor operational tools have

adequately resolved potential reliability concerns and an EDAM BAA faces the prospect of load shed. A constraint in the EDAM for energy transfers and capacity transfers will collectively ensure that an EDAM BAA first meets its own requirements before exports energy or capacity to other EDAM BAAs. In stressed system conditions, after the Real-Time Market has exhausted available supply, it will signal infeasibility by relaxing the power balance constraint in the EDAM BAA with insufficient supply, affording day-ahead and base EDAM Transfers a priority equal to load. This priority will remain subject to operational coordination and operational discretion, which are integral parts of responding to reliability events and meeting the reliability obligations that remain the responsibility of an EDAM Entity. For example, if curtailing a transfer schedule to the receiving EDAM BAA would not place that BAA into an emergency condition, the EDAM BAAs could coordinate in a manner that would allow the BAA facing the emergency condition to curtail the transfer schedule ahead of load to avoid load shed. In footprint-wide stressed conditions where curtailing a transfer would likely place the receiving BAA in an emergency condition, however, the proposal is that the equal priority be honored. In those situations, transfers would be curtailed by the EDAM Entity proportional to its load shed.

Convergence Bidding: The EDAM will extend the CAISO's authority as market operator in Section 7 to the EDAM Area, including Section 7.9 and suspension of Virtual Bids.

33.8 [Not Used]

Ancillary services are not procured through the EDAM, and the ancillary services provisions of Section 8 do not apply to the EDAM.

[Hold open for specific rules associated with Ancillary Services should further proposals implement procurement through the EDAM, meaning until such time the provisions of Section 8 applicable to Scheduling Coordinators will not apply to EDAM Entity Scheduling Coordinators and each EDAM Entity will remain responsible for procuring and maintaining its own ancillary services to meet its obligations.]

33.9 Outages and Critical Contingencies

Section 9 will not apply to EDAM Market Participants except as referenced in Section 33.9 *[adjust if alternatively this section references Section 29.9]*.

The EDAM Entity is responsible for performing engineering studies and approving Outages on transmission facilities for maintenance purposes and EDAM Resources within the EDAM Entity Balancing Authority Area. This includes making any necessary arrangements for this purpose regarding the transmission capacity made available by an EDAM Transmission Service Provider to the Day-Ahead Market. The CAISO will implement the transmission and Generation Outages approved by the EDAM Entity through the Day-Ahead Market process and will inform the EDAM Entity of any anticipated overloads.

An EDAM Entity Scheduling Coordinator will comply with the reporting provisions of Section 9 regarding Forced Outages of transmission facilities within the EDAM Entity Balancing Authority Area they represent, and an EDAM Resource Scheduling Coordinator will comply with the reporting provisions of Section 9 with regard to Forced Outages of Generating Units it represents as EDAM Resources. An EDAM Entity Scheduling Coordinator must notify the CAISO by the means specified in the Business Practice Manual for the Extended Day Ahead Market regarding transmission limits on the transmission capacity made available to the Day-Ahead Market within the EIM Entity Balancing Authority Area that need to be enforced in the Day-Ahead Market.

[The specific outage and critical contingency procedures applicable to EDAM Entities and the CAISO will be further considered and set forth in section 33.9 similar to the content and

structure of the WEIM tariff section 29.9]

33.10 Metering and Settlement Data

The metering and settlement data requirements provisions of Section 10 will apply in the EDAM, including any exceptions provided in Section 10.

The EDAM Entity will ensure (1) each EDAM Resource in an EDAM Entity Balancing Authority Area that is not a Generating Unit or is a Generating Unit with a rated capacity of 10 MW or greater (including storage resources and (2) each aggregated resource with a total rated capacity of 10 MW or greater) and each EIM Intertie has telemetry meeting the requirements of the Business Practice Manual for the Extended Day-Ahead Market.

The EDAM Entity will ensure each EDAM Market Participant in an EIM Entity Balancing Authority Area becomes either a CAISO Metered Entity or a Scheduling Coordinator Metered Entity and complies with the requirements of Section 10 except as provided in Section 33.10. Metering for Settlement purposes is required for all EIM Interties. For each EIM External Intertie Bid that clears the IFM resulting in a 15-minute EDAM External Intertie schedule, the EDAM Entity Scheduling Coordinator must submit to the CAISO the corresponding hourly transmission profile and 15-minute Energy profiles from the respective E-Tags. These must reflect the Point of Receipt and Point of Delivery that was declared in the IFM Bid submittal, at least 20 minutes before the start of the Operating Hour, and the EDAM Entity Scheduling Coordinator must provide an updated Energy profile to the extent required by Section 30.5.7.

[The specific metering and settlement data requirements will be further considered and set forth in Section 33.10 similar to the content and structure of the WEIM tariff Section 29.10]

33.11 Settlements And Billing for EDAM Market Participants

Section 33.11, rather than Section 11, will apply to CAISO Settlement with EDAM Entity Scheduling Coordinators, EDAM Participating Resource Scheduling Coordinators and EDAM Market Participants, except as otherwise provided. The EDAM will extend the existing Day-Ahead Market settlement practices and timelines and develop some new settlement practices for EDAM Entity Balancing Authority Areas and EDAM Market Participants.

[Section 29.11 references Section 11 with respect to settlement rules that apply to the determination of prices and the allocation of costs among BAAs in the EDAM Area. It will be necessary to further consider the relationship between Section 33.11 and Section 11 to ensure appropriate inclusion of EDAM settlement rules within the CAISO Tariff.]

33.11.1 Transfer Revenue and Congestion Revenue Allocation

Transfer revenue is the settlement difference between the revenue paid to the import EDAM Transfers and the cost charged to the export EDAM Transfers. Congestion revenue occurs when an intertie transmission constraint (ITC) associated with an EDAM Internal Intertie binds.

33.11.1.1 Transfer Revenue

The EDAM will incorporate a power balance constraint in the Marginal Cost of Congestion (MCC) component of the Locational Marginal Price (LMP) for each Balancing Authority Area in the EDAM Area. The EDAM will also retain the transmission constraint violation in the MCC component of the LMP, such that the marginal cost of Energy (MEC) in each Balancing Authority Area reflects the shadow price of the power balance constraint of that Balancing Authority Area. The MCC reflects the shadow price of a binding transmission constraint, and Energy transfer revenue will be collected from price differences between the MEC component of the LMP across BAAs, which is

caused by transfer schedules reaching their scheduling limits. The CAISO will calculate transfer revenues for energy transfers, imbalance reserve transfers, and/or reliability capacity transfers for all participating BAAs when the transfer scheduling limit is binding.

Transfer revenue for energy occurs when the EDAM BAA net transfer scheduling limit binds as market clearing bid in supply against bid in demand. This binding constraint manifests as a separation of the marginal energy price of the binding EDAM BAA from the marginal energy price of neighboring EDAM BAAs. There will be a 50:50 sharing between EDAM BAAs of transfer revenues accruing at transmission interfaces supporting EDAM transfers. The CAISO will allocate those transfer revenues to the EDAM entities and transmission providers supporting the transfer. Where the transmission customer releases its transmission rights for EDAM optimization in advance of the market run at 10 a.m., the ISO will allocate 100 percent of full transfer revenues associated with the released transmission rights directly to the respective transmission customer. In unique instances where a 50:50 sharing of transfer revenue does not align with the commercial arrangement for the transfer transmission (*i.e.*, specific contracts between entities), different transfer revenue sharing arrangements can be accommodated.

Similarly, if the transfer scheduling limit binds so the market optimization cannot transfer lower cost imbalance reserve capacity between two EDAM BAAs, the imbalance reserve price between these EDAM BAAs will separate, resulting in imbalance reserve transfer revenue. The two BAAs will share the imbalance reserve transfer revenue equally. Reliability capacity transfer revenue will accrue when the reliability capacity prices separate between two EDAM BAAs because the transfer scheduling constraint becomes binding in RUC, and the two BAAs will also share the reliability capacity transfer revenue equally.

33.11.1.1.1 Imbalance Reserve Transfer Revenue

Transfer revenue for imbalance reserve up and imbalance reserve down (IRU/IRD) manifests when a transfer scheduling limit binds while optimizing capacity to meet BAA uncertainty requirement. The binding constraint manifests as separation of imbalance reserve up price/imbalance reserve down price (IRUP/IRD) in the binding EDAM BAA from the IRUP/IRD. The CAISO will calculate an hourly transfer revenue for IRU/IRD for each transfer point in which the transfer scheduling limits is binding. The transfer revenue equals the product of the transfer quantity and the difference between the transfer import IRUP/IRD price and transfer export IRUP/IRD. The transfer revenue for energy is distributed to the EDAM BAAs including the CAISO BAA at a 50:50 ratio. EDAM BAA transfer revenue will be distributed to the EDAM Entity for sub-allocation per its OATT. ISO BAA transfer revenue is further distributed to metered demand.

33.11.1.1.2 Reliability Capacity Transfer Revenue

Transfer revenue for reliability capacity up and reliability capacity down (RCU/RCD) manifests when transfer scheduling limit binds in RUC. The binding constraint manifests as separation of reliability capacity up price/reliability capacity down price (RCUP/RCD) in the binding EDAM BAA from the RCUP/RCD. The CAISO will calculate an hourly transfer revenue for RCUP/RCD for each transfer point in which the transfer scheduling limits is binding. The transfer revenue equals the product of the transfer quantity and the difference between the transfer import RCUP/RCD and transfer export RCUP/RCD. The transfer revenue for energy is distributed to the EDAM BAAs including the ISO BAA at a 50:50 ratio. EDAM BAA transfer

revenue will be distributed to the EDAM Entity for sub-allocation per its OATT. CAISO BAA transfer revenue is further distributed to transmission rights holders, if applicable, or to scheduling coordinators in proportion to metered demand compared to CAISO total metered demand.

33.11.1.2 Congestion Revenue

Congestion revenue will be collected from price differences in the MCC of the LMP across nodes within a BAA or between intertie scheduling points at the boundary of an EDAM BAA and internal nodes, the latter of which is caused by binding scheduling limits at the intertie (*i.e.*, the ITC/ISL). If there is a binding intertie transmission constraint/intertie scheduling limit constraint (ITC/ISL), the CAISO will allocate 100 percent of the full (100:0) congestion revenue to the EDAM BAA where the constraint is modeled. *[Note: This approach differs from how these revenues are allocated in the WEIM today, but the WEIM would be modified to adopt the proposed EDAM congestion revenue allocation method.]*

33.11.2 RSE Administrative Surcharge

Capacity shortfalls identified in the EDAM RSE may be cured through a surcharge applied to surplus supply offers that have been willingly bid into the EDAM, based on the maximum hourly deficiency. Using the maximum hourly supply deficiency, the CAISO will calculate the administrative surcharge using the maximum of the Mid-C or Palo Verde day-ahead 16-hour block product hub price for an on-peak block of energy, for the entire multi-hour block. *[Note: The CAISO is also working with stakeholders on a WEIM RSE energy assistance transfer option that would have some settlement implications that may need to be reflected in Section 33 or 29.]*

33.11.2.1 Collection

Each EDAM BAA will remain responsible for determining how any resultant surcharges will be allocated to customers within its service area. For the CAISO, a two-tiered approach will include (1) review availability of resource adequacy capacity to allocate any surcharge to LSEs whose failure to meet their obligations lead to the failure and (2) allocate any remaining funding requirements to LSEs pro-rata based on their load share within the CAISO BAA.

33.11.2.2 Allocation

The CAISO will allocate the surcharge revenues based on the net EDAM export transfer of the BAA that was short, including its transfers of energy, imbalance reserves, and reliability capacity, to net-EDAM exporters and entities that procure imbalance reserves beyond their obligation.

33.11.3 Day-Ahead and Real-Time Market Settlement

The CAISO will calculate settlement charges and payments based on Day-Ahead Market and Real-Time Market outcomes and transmission made available to support EDAM Transfers. The EDAM will extend some existing CAISO settlement practices and also develop new settlement practices for EDAM Entity Balancing Authority Areas and EDAM Market Participants.

33.11.3.1 Integrated Forward Market (IFM)

IFM hourly day-ahead energy schedules will have an explicit settlement, while IFM commitment costs will be considered in bid cost recovery calculations.

33.11.3.1.1 Energy Schedules and Convergence Bids

Generation that clears the Day-Ahead Market is paid the LMP at the relevant pricing node location. An import schedule is paid the LMP at the relevant scheduling point-intertie pricing location. Virtual supply is paid the LMP at the relevant pricing node, trading hub, or aggregated pricing node location in which the virtual supply cleared the Day-Ahead Market.

Demand that clears the Day-Ahead Market will be charged the LMP at the relevant load aggregation point (LAP). An export schedule will be charged the LMP at the relevant scheduling point-intertie pricing location. Virtual demand is charged the LMP at the relevant pricing node, trading hub, or aggregated pricing location, including load aggregation points in which the virtual demand cleared the Day-Ahead Market.

Energy transferred between BAAs in the EDAM Area will settle both as an export energy transfer and import energy transfer. These import and export energy transfers will be paid and charged at the LMP at their relevant scheduling point-intertie locations.

33.11.3.1.2 Greenhouse Gas (GHG)

Resources that receive a day-ahead GHG attribution to serve demand in a GHG region will receive a GHG payment. The GHG payment is the product of the IFM GHG obligation and the IFM marginal GHG price. The GHG region load being served by non-GHG supply will have its GHG charge settlement embedded within the overall load energy schedule settlement.

33.11.3.1.3 Neutrality

Settlements will consider the energy settlement of each component of the LMP to ensure neutrality: marginal energy cost, marginal cost of congestion, marginal cost of losses, and marginal cost of GHG.

33.11.3.1.3.1 Marginal Loss Offset

The CAISO will calculate an hourly day-ahead marginal loss offset amount for each BAA. The hourly day-ahead marginal loss offset amount will equal the sum of the product of day-ahead energy schedules, including virtual schedules and transfer energy schedules, and the marginal cost of losses at their relevant pricing location. The CAISO will allocate the hourly day-ahead marginal loss offset amount to the EDAM Entity and, for the CAISO BAA, to measured demand.

33.11.3.1.3.2 Greenhouse Gas Offset

The ISO will calculate an hourly day-ahead marginal GHG offset amount for the EDAM Area in relationship to GHG region(s) vs the non-GHG region. The hourly day-ahead marginal GHG offset amount will equal the sum of the product of day-ahead energy schedules, including virtual schedules and transfer energy schedules, and the marginal cost of GHG. The CAISO will allocate the hourly day-ahead marginal loss offset amount to a GHG region's metered demand. If more than one GHG region exists with different GHG accounting rules, this will require calculation of a separate GHG marginal offset amount for each GHG region.

33.11.3.1.3.3 Marginal Congestion Offset

The CAISO will calculate an hourly day-ahead marginal congestion offset amount

for each EDAM BAA. The hourly day-ahead marginal congestion offset amount will equal the sum of the product of day-ahead energy schedules, including virtual schedules and transfer revenue, and the marginal cost of congestion contribution for each EDAM BAA at its relevant pricing location and considering relevant transmission constraints. The CAISO will allocate the hourly day-ahead marginal congestion offset amount to each EDAM Entity and for the CAISO BAA, to CRRs and metered demand per the CAISO tariff.

33.11.3.1.3.4 Marginal Energy Offset

The CAISO will calculate an hourly day-ahead marginal energy offset amount for each EDAM BAA. The BAA hourly day-ahead marginal congestion offset amount will equal the remainder of the hourly day-ahead energy settlement less the offset amounts attributed to BAA day-ahead marginal cost of losses, BAA day-ahead marginal cost of greenhouse gas, and the BAA day-ahead marginal cost of congestion. The CAISO will allocate the hourly day-ahead marginal energy offset amount to the EDAM Entity and for the CAISO BAA to metered demand.

33.11.3.1.4 Transmission Revenue Recovery

[Transmission revenue recovery is outlined in Section 33.26, understanding that associated settlement rules would be addressed in Section 33.11 as appropriate, which will be reflected after the proposal is further developed.]

33.11.3.1.5 Imbalance Reserve Settlement

Resources that receive an imbalance reserve upward (IRU) capacity award will be paid the applicable nodal imbalance reserve upward price (IRUP). These resources will have a must offer obligation to bid the IRU capacity into the real-time market (RTM). If the resource does not meet its must offer obligation, the ISO will assess a non-compliance rescission charge for the 10-minute-ramp-capable portion not bid into the RTM. EDAM transfer resources that received an IRU capacity award will be charged the IRUP of the BAA out of which the capacity requirement is transferring and be paid the IRUP of the BAA into which the capacity requirement is transferring.

Resources that receive an IRD capacity award will be paid the applicable nodal IRDP. These resources will have a must offer obligation to bid the IRD capacity into the RTM. If the resource does not meet its must offer obligation, the ISO will assess a non-compliance rescission charge for the 10-minute-ramp-capable portion not bid into the RTM. EDAM transfer resources that received an IRD capacity award will be charged the IRDP of the BAA out of which the capacity requirement is transferring and be paid the IRDP of the BAA into which the capacity requirement is transferring.

The CAISO will allocate each EDAM BAA's IRU and IRD costs through a two-tier allocation methodology, respectively. The two-tier allocation methodology is currently under development in the DAME initiative, and the allocation methodology adopted from the DAME initiative will be considered for inclusion in Section 33.11 as appropriate.

33.11.3.1.6 Ancillary Service Settlement

The IFM will initially co-optimize energy and imbalance reserve for each EDAM BAA and energy, ancillary services, and imbalance reserves for the ISO BAA. During this time, the CAISO will settle CAISO ancillary service awards and self-provisions associated with EDAM in same manner it does today.

33.11.3.1.7 Bid Cost Recovery

The CAISO will calculate bid cost recovery (BCR) for each eligible resource; *i.e.*, the total Day-Ahead Market revenues over a trading day do not exceed the resource's daily commitment and bid costs, the resource is eligible to recover its daily shortfall in the trade hours in which the resource was short in recovering its costs. For each trading hour, the CAISO will calculate the total IFM bid cost recovery amount (IFM BCR amount) for each EDAM BAA. For a BAA with net energy export transfer, the CAISO will transfer a portion of the BAA's IFM BCR amount to BAAs receiving net import energy transfers. This IFM BCR transfer amount will equal the product of the hourly IFM BCR amount and the BAA net energy transfer net export divided by the sum of the BAA net energy transfer plus day-ahead load schedule and day-ahead export schedules. For EDAM BAAs, any remaining BAA IFM BCR amount will be allocated to the EDAM Entity and, for the CAISO BAA, through the current two-tier IFM BCR allocation in the CAISO tariff.

33.11.3.1.8 Residual Unit Commitment

The RUC process procures incremental or decremental capacity (called reliability capacity up and reliability capacity down, respectively) to resolve differences between an EDAM BAA's IFM physical energy schedules and its load forecast. RUC is a backstop to the IFM to ensure there is sufficient physical supply available to serve load in real-time.

33.11.3.1.8.1 Reliability Capacity

Resources that received a reliability capacity up (RCU) award will be paid the marginal reliability capacity up price. Resources that received a reliability capacity down (RCD) award will be paid the marginal reliability capacity down price. Resources that receive a RCU award or RCD award have a real-time must offer obligation. Resources that do not submit RCU/RCD quantities in accordance with their RTM must offer obligation will be subject to a non-compliance charge.

The CAISO will calculate the total BAA net reliability capacity up amount as the sum of the EDAM BAA resource reliability capacity up settlement, BAA resource reliability capacity up non-compliance amount, and the BAA reliability capacity up transfer amount. The CAISO will calculate the total BAA net reliability capacity down capacity amount as the sum of the EDAM BAA resource reliability capacity down settlement, BAA resource reliability capacity down non-compliance amount, and the BAA reliability capacity down transfer amount. The total BAA net reliability capacity up capacity amount and the total BAA net reliability capacity down amount will be allocated according to the two-tier allocation being developed in the DAME initiative.

33.11.3.1.8.2 RUC Bid Cost Recovery

The CAISO will calculate BCR for each eligible resource. The CAISO will calculate the RUC shortfall and RUC surplus for each trading hour of trading day. In addition, the CAISO will apply the BCR netting process between net RUC BCR shortfalls and RTM surpluses and net RUC surplus and RTM shortfalls. If the total net RUC surplus over a trading day does not exceed the resource's daily RUC shortfalls, the resource is eligible to recover the daily RUC shortfall in the trade hours in which the resource was short revenue.

For each Trading hour, the CAISO will calculate the total BAA RUC bid cost recovery amount (RUC BCR net amount). The total BAA RUC BCR amount will

be allocated to the appropriate BAA according to the two-tier RUC allocation methodology being developed in DAME initiative.

33.11.3.2 Real-Time Market Settlement

The EDAM RTM settlement is mainly an imbalance settlement of energy, ancillary services, and flexible ramp product from day-ahead schedules and awards because base schedules no longer serve as the reference point.

33.11.3.2.1 Under-scheduling and Over-scheduling Charge

EDAM BAAs will no longer be subject to the over-scheduling/under scheduling charge, nor will they be eligible to receive any funds collected via the over-scheduling/under-scheduling charge structure in place for the WEIM.

33.11.3.2.2 Imbalance Energy

The CAISO settles imbalance energy for each resource within the WEIM/ISO BAA dispatched in real-time. There are four categories of imbalance energy: FMM instructed imbalance energy, RTD instructed imbalance energy, uninstructed imbalance energy, and unaccounted for imbalance energy. In addition, the CAISO will account for any non-zero neutrality amounts which materialize from imbalance energy settlement.

33.11.3.2.2.1 Fifteen Minute Market (FMM)

The FMM IIE settlement will resemble current FMM IIE settlement, except the reference point for FMM IIE settlement will be the resource's day-ahead schedule, not its real-time base schedule. Intertie schedules awarded an energy schedule in the day-ahead market that subsequently have an incremental/decremental FMM schedule change in the RTM, and did not submit an energy profile tag prior to HASP, will be subject to the HASP reversal rule applied through settlement. FMM energy transfer schedules will settle as FMM IIE at the LMP for the applicable scheduling point-ties between EDAM BAAs.

33.11.3.2.2.2 Real-Time Dispatch (RTD)

The RTD IIE settlement will resemble current RTD IIE settlement. The EDAM proposal also introduces a new RTM RTD settlement charge. RTD energy transfer schedules will settle as RTD IIE at the LMP of applicable scheduling point-tie(s) between EDAM BAAs.

33.11.3.2.2.3 Uninstructed Imbalance Energy (UIE)

The UIE will be the same as today. Resource specific UIE will settle at the RTD LMP, and load UIE will settle at the RTM hourly LAP LMP.

33.11.3.2.2.4 Unaccounted for Energy (UFE)

UFE will settle at the hourly RTM LAP LMP and will be allocated to relevant metered demand.

33.11.3.2.4 Greenhouse Gas (GHG)

RTM GHG settlement is considered an imbalance settlement from day-ahead GHG settlement. If the RTM dispatches energy from a non-GHG Regulation Area to support a transfer to a GHG Regulation Area, this energy will be attributed to resources based upon their GHG bids and the least cost solution.

The FMM will attribute GHG MWs to resources based upon the least cost solution

and GHG bid. The GHG settlement for the resource will be an imbalance settlement from its day-ahead GHG attribution. The FMM GHG settlement will equal the product of the FMM GHG attribution less the day-ahead attribution and the FMM marginal cost of GHG.

RTD GHG settlement is also an imbalance settlement, but the reference point is the FMM GHG attribution MWs. Similar to FMM GHG settlement, the RTD GHG settlement will equal the product of the RTD GHG attribution less FMM attribution and the RTD marginal cost of GHG.

33.11.3.2.5 Real-Time Offsets

The BAA real-time marginal loss offset settlement and BAA real-time congestion offset settlement will remain unchanged. The CAISO will calculate these offsets for each BAA based upon the nodal energy dispatch, the relevant FMM or RTD marginal cost of losses price, and the relevant FMM or RTD BAA marginal cost of congestion price. For EDAM BAAs, the CAISO will allocate the BAA level offsets directly to the EDAM BAA and, for the CAISO BAA, to measured demand. The CAISO will not include the calculation for financial transfer amounts, and will develop a RTM GHG offset charge code.

33.11.3.2.6 Ancillary Services

EDAM BAAs will provide the RTM with total ancillary service self-provision. This RTM self-provision should equal the day-ahead self-provision or day-ahead self-provision plus any incremental real-time self-provision if ancillary service requirements increase in the RTM. Resources that receive a RTM ancillary service award will be paid the RTM ancillary service marginal price. These RTM ancillary service awards will be subject to the same non-compliance provision as the day-ahead ancillary service awards. The CAISO will allocate the ancillary service cost less the payment rescission to scheduling coordinators based upon ancillary service obligations netted against ancillary service self-provision.

33.11.3.2.7 Intertie Deviations

The intertie deviation penalty (IDS) is a charge applied to intertie resources that receive an award in HASP and submit an after-the-fact tag that deviates from that HASP schedule. However, if the deviation results from a reliability curtailment, the resource's reliability curtailment is excluded from the penalty. The IDS penalty is calculated for each deviating intertie resource as the product the IDS deviation quantity, which is the difference between resource e-tag and HASP award, and the IDS price. The IDS price is 50% of the greater of the FMM LMP or RTD LMP for of that settlement interval. In addition, a 25% charge applies if the resource accepted the award but does not tag its accepted award. The IDS penalty is then allocated to the BAA measured demand.

33.11.3.2.8 Flexible Ramping Product

The CAISO will settle forecasted movement and flexible ramping up and down capacity as it does today for the Day-Ahead Market.

33.11.3.2.8.1 Forecasted Movement

Resources that receive a FMM forecasted movement award will receive a settlement charge or payment equal to the difference of the FMM forecasted movement from the day-ahead market forecasted movement and the price differential between relevant FMM flexible ramping up and FMM flexible ramping

down prices, respectively. In addition, resources receiving a RTD forecasted movement award will receive a settlement charge or payment equal to the difference of the FMM forecasted movement from the day-ahead market forecasted movement and the price differential between relevant FMM flexible ramping up and FMM flexible ramping down prices. The sum of FMM and RTD forecasted movement settlement will be allocated to the relevant EDAM BAA(s) metered demand based upon the results of the flexible ramp resource sufficiency evaluation.

33.11.3.2.8.2 Flexible Ramp Up/Down Uncertainty (FRU/FRD)

Because of the imbalance reserve product being developed as part of the DAME initiative, resources receiving a FMM FRU/FRD award will receive an imbalance settlement. The resource will settle the FRU/FRD award equal to the difference between the five minute ramp IRU/IRD award and the FMM FRU/FRD award multiplied by the FMM FRU/FRD LMP. The CAISO will calculate the RTD FRU/FRD award settlement as it does today. RTD FRU/FRD settlement will be the product of the difference between the FMM FRU/FRD award and the RTD FRU/FRD LMP.

The total flexible ramp up/down uncertainty award cost, which is the sum of FMM FRU/FRD settlement plus RTD FRU/FRD settlement, will be allocated to relevant BAA(s) and uncertainty movement categories. The FRU/FRD category costs are further allocated to resources based upon decremental/incremental uninstructed imbalance energy, respectively, plus uncertainty movement or operational adjustment.

33.11.4 Implementation Fee

The CAISO will recover an implementation fee through the EDAM Implementation Agreement to recover its actual costs incurred to onboard each WEIM entity into EDAM based on the ISO's cost of service. For projection purposes, the ISO used an hourly rate of \$200 for all onboarding activities. This fully burdened rate is calculated based on the most recently published triennial Grid Management Charge Update Cost of Service Study. For billing purposes, the CAISO will determine hourly rates for onboarding on an annual basis based on current aggregated and burdened labor rates, and estimates that the average cost to onboard an EDAM entity will be \$1,200,000 with the actual onboarding costs per EDAM entity varying depending on the size and complexity of the onboarding. A \$300,000 deposit will be collected from prospective EDAM entities to cover the actual start-up costs incurred. If the deposit exceeds the actual cost incurred to provide onboarding services, the CAISO will refund the excess amount including any interest accrued on the remaining deposit. If the actual cost of performing the service exceeds the deposit, additional deposits in \$300,000 increments will be required, which the EDAM entity must pay within thirty (30) calendar days. Any invoice payment past due will accrue interest, per annum, calculated in accordance with 5 C.F.R. 1315.10. If the EDAM entity fails to timely pay any undisputed costs, the CAISO will not be obligated to continue performing onboarding activities unless and until the EDAM entity has paid all undisputed amounts. The CAISO will provide a report that details deposit(s) received, actual costs incurred, and applicable interest earnings (on deposit balance) for each onboarding project and return any unused deposit remaining after onboarding, plus interest on the remaining deposit (based on the average interest rate earned), to the EDAM entity within ninety (90) calendar days after onboarding is completed and acknowledged by both the ISO and EDAM entity.

33.11.5 Administrative Fee

The EDAM administrative fee will consist of the existing market services charge and a new EDAM system operations charge, both volumetric charges. The market services charge represents fees for the Real-Time Market and the Day-Ahead Market services that EDAM offers, and applies to awarded MWh of energy and MW of capacity. The EDAM systems operations charge will represent the fees for real-time dispatch services that EDAM offers, and it applies to metered flows in MWh of supply and demand. Once a WEIM Entity begins participating in the EDAM, it will no longer pay WEIM administrative fees, only EDAM administrative fees.

33.11.6 Settlement Schedule

The CAISO will assess EDAM charges and fees in accordance with the settlements and billing process and schedule set forth in CAISO Tariff Section 11.

[The specific settlement rules will be further considered and set forth in Section 33.11 similar to the content and structure of the WEIM tariff Section 29.11]

33.12 Creditworthiness

EDAM Entity Scheduling Coordinators and EDAM Resource Scheduling Coordinators must comply with the creditworthiness requirements of CAISO Tariff. In the event EDAM Entity Scheduling Coordinators and EDAM Resource Scheduling Coordinators fail to satisfy the credit or other requirements in Section 12, the consequences specified in Section 12 will apply.

[The specific creditworthiness rules, particularly with respect to convergence bidding, will be further considered and set forth in Section 33.12 similar to the content and structure of the WEIM tariff Section 29.12]

33.13 Dispute Resolution

Confirmation and validation of any dispute associated with the participation of EDAM Market Participants in the Day-Ahead Market is subject to Section 11.29.8 and will be managed through the CAISO's customer inquiry, dispute, and information system and as provided in the Business Practice Manual for the Extended Day-Ahead Market. EDAM Market Participants will be subject to dispute resolution pursuant to Section 13.

33.14 Force Majeure, Indemnity, Liabilities, and Penalties

The provisions of Section 14 regarding Uncontrollable Forces, indemnity, liability, and penalties will apply to the participation of EDAM Market Participants in the Day-Ahead Market.

33.15 [Not Used]

The regulatory filings provisions of Section 15 will apply to the EDAM by default as they govern the CAISO regulatory filing process.

[Consider EDAM specific issues that may need to be addressed and do not otherwise fit well within the context of another subsection of Section 33]

33.16 Existing Transmission Contracts and Ownership Rights in EDAM

Section 16 and Section 17 will not apply to EDAM Market except as referenced in Section 33.16.

EDAM Transmission Service Provider customers with non-OATT; *i.e.*, "legacy" transmission rights, or an ownership interest on an EDAM Internal Intertie not included in the EDAM will be respected and have two pathways to schedule their transmission rights in the EDAM.

33.16.1 Pathway 1

The transmission rights holder may schedule use of their transmission in accordance with the contractual or ownership rights, in which case the transmission would not be available for EDAM Transfers.

33.16.1 Pathway 2

The transmission rights holder may voluntarily release the transmission prior to the start of the Day Ahead Market, in which case the transmission would be available for EDAM Transfers.

[The specific requirements for the treatment of pre-OATT transmission contracts and transmission ownership rights at EDAM Internal Interties will be further considered and set forth in Section 33.16, with reference to Section 16 or Section 17 as appropriate]

33.17 EDAM Transmission Commitment and Availability

Section 17 will not apply to EDAM Market Participants.

An EDAM Entity Transmission Service Provider and its transmission customers will make transmission capacity available for the Day-Ahead Market to commit supply within the EDAM Balancing Authority Area and support EDAM Transfers between EDAM Balancing Authority Areas. *[Note: EDAM transfer revenue and congestion revenue allocation is addressed in Section 33.11, while the EDAM transmission revenue recovery proposal is addressed in Section 33.26]*

33.17.1 EDAM Transmission Service Information

Each EDAM Entity will provide the CAISO with EDAM Transmission Service Information for the transmission system associated with the EDAM Transmission Service Providers within its Balancing Authority Area.

33.17.2 EDAM Transmission Availability

Each EDAM Entity will ensure all EDAM Transmission Service Providers in its Balancing Authority Area make available for use in the Day-Ahead Market transmission capacity that is included in the EIM Transmission Service Information.

33.17.2.1

EDAM Transmission Service Provider customers can use their transmission rights internal to an EDAM Entity Balancing Authority Area by self-scheduling EDAM Resources associated with the use of their transmission rights.

33.17.2.2

EDAM Transmission Service Providers will coordinate with their transmission customers to register the customers' transmission rights through the submission of Transmission Rights and Transmission Curtailment (TRTC) instructions defining the transmission rights, which will be assigned a contract reference number (CRN) that will be utilized when scheduling those transmission rights, consistent with Section 33.16.

33.17.3 EDAM Transfers

Each EDAM Entity will identify the transmission capacity that can be available to the Day-Ahead Market at EDAM Internal Interties.

33.17.2.1 Transmission to Support Resource Sufficiency (bucket 1)

Each EDAM Transmission Service Provider must make firm or conditional firm transmission available to support delivery of external supply included in the EDAM

Resource Sufficiency Evaluation from the source Balancing Authority Area to the sink Balancing Authority Area.

33.17.2.2 Transmission Rights of OATT Transmission Customers (bucket 2)

EDAM Transmission Service Provider OATT customers have three pathways prior the Day-Ahead Market to schedule their transmission rights.

33.17.2.2.1 Pathway 1

The transmission customer may schedule use of its transmission rights prior to the start of the Day Ahead Market.

33.17.2.2.2 Pathway 2

The transmission customer may release its transmission rights for EDAM Transfers prior to 06:00 the morning of the Day-Ahead Market.

33.17.2.2.3 Pathway 3

The transmission customer may not schedule use of the transmission rights by the start of the Day-Ahead Market, in which case the unscheduled transmission rights would be available for EDAM Transfers.

33.17.2.3 Available Transmission Capacity (bucket 3)

The EDAM Entity will determine the amount of unsold available transfer capability that the CAISO can make available for EDAM transfers in accordance with its tariff and communicate that limit to the CAISO prior to the start of the Day-Ahead Market.

33.17.4 CAISO Transmission Available for EDAM Transfers

The CAISO will make transmission capacity on the CAISO Controlled Grid available for EDAM Transfers as required to support the EDAM Resource Sufficiency Evaluation at EDAM Internal Interties (bucket 1).

The CAISO will make transmission associated with Existing Transmission Contracts and Transmission Ownership Rights available to the Day-Ahead Market consistent with the ETC/TOR as provided in Section 33.16 (bucket 2).

The CAISO will make available transfer capacity available to the Day-Ahead Market for EDAM Transfers (bucket 3).

[The specific requirements for the modeling and management of transmission rights at EDAM Interties will be further considered and set forth in Section 33.17 similar to the content and structure of the WEIM tariff Section 29.17]

33.18 [Not Used]

[Consider EDAM specific issues that may need to be addressed and do not otherwise fit well within the context of another subsection of Section 33]

33.19 [Not Used]

The Reliability Coordinator function does not apply to EDAM.

[Consider EDAM specific issues that may need to be addressed and do not otherwise fit well within the context of another subsection of Section 33]

33.20 Confidentiality

The confidentiality provisions in Section 20 will apply to participation of EDAM Market

Participants in the Day-Ahead Market.

[Note: The CAISO may propose language regarding aggregated data release as part of Section 33.20 to address GHG compliance reporting requirements under Section 33.32]

33.21 [Not Used]

[Consider EDAM specific issues that may need to be addressed and do not otherwise fit well within the context of another subsection of Section 33]

33.22 Miscellaneous

Section 22 and the additional miscellaneous provisions of Section 33.22 will apply to the EDAM.

To the extent that the CAISO would incur any tax liability as a result of the participation of EDAM Market Participants in the Day-Ahead Market, for example as market operator or as central counterparty to EDAM transactions, the CAISO will pass those taxes on to the EDAM Entity Scheduling Coordinator for the EDAM Entity area where the transactions triggered the tax liability.

Neither the CAISO nor the EDAM Entity is a “Purchasing Selling Entity” for purposes of E-Tagging or EDAM Transfers, nor will either be listed as a “Purchasing Selling Entity” for purposes of E-Tagging or EDAM Transfers.

Title to Energy in the Day-Ahead Market passes directly from the entity that holds title when the Energy enters the CAISO Controlled Grid or the transmission system of an EDAM Transmission Service Provider, whichever is first following Dispatch, to the entity that removes the Energy from the CAISO Controlled Grid or the transmission system of a EDAM Transmission Service Provider, whichever last precedes delivery to Load.

[The specific miscellaneous requirements will be further considered and set forth in Section 33.22 similar to the content and structure of the WEIM tariff Section 29.22]

33.23 [Not Used]

The categories of transmission capacity are associated with CAISO transmission service on the CAISO Controlled Grid and do not apply to the EDAM.

[Consider EDAM specific issues that may need to be addressed and do not otherwise fit well within the context of another subsection of Section 33]

33.24 [Not Used]

The EDAM does not include transmission planning related functions and Section 24 does not apply.

[Consider EDAM specific issues that may need to be addressed and do not otherwise fit well within the context of another subsection of Section 33]

33.25 [Not Used]

The EDAM does not include generator interconnection related functions and CAISO Tariff Section 25 does not apply.

[Consider EDAM specific issues that may need to be addressed and do not otherwise fit well within the context of another subsection of Section 33]

33.26 Transmission Rates And Charges

Transmission service charges for Day-Ahead Market transactions serving Load within the CAISO Balancing Authority Area that use the CAISO Controlled Grid are governed by Section

26. Transmission service charges for Day-Ahead Market transactions serving Load within an EDAM Entity Balancing Authority Area are governed by the applicable EDAM Transmission Service Provider OATT.

Transmission service charges for Day-Ahead Market transactions supported by an EDAM Transfer will be addressed under Section 33.26. Transmission revenue recovery and allocation for EDAM Transfers would also be addressed in the EDAM Transmission Service Provider OATT.

33.26.1 EDAM Historical Transmission Revenue Recovery (TRR)

The EDAM will recover TRR (a) associated with the EDAM Transmission Service Provider short-term firm and non-firm point-to-point sales revenue, and for the CAISO, the Wheeling Access Charge (WAC); (b) attributed to short-term firm and non-firm point to point transmission service on approved new transmission projects that increase transfer capability on EDAM Internal Interties; and (c) wheeling-through volumes that exceed the total imports/exports from the EDAM Entity Balancing Authority Area.

33.26.1.1 EDAM Recoverable TRR

Each EDAM Transmission Service Provider will forecast its EDAM recoverable TRR on an annual basis, with the exception of the wheeling through component, which would be included for months where the conditions trigger. The EDAM recoverable TRR amounts will then be allocated to gross load across the EDAM Area, with the caveat that each EDAM Entity would not be allocated its own EDAM recoverable TRR. There would be an annual true-up to support actual revenue recovery. EDAM recoverable TRR” will consist of:

- (a) revenues associated with the short-term firm and non-firm point-to-point products, and for the ISO, foregone reduction in wheeling access charge (WAC) revenues;
- (b) revenues attributed to short-term firm and non-firm point to point transmission service on approved new transmission builds that increase transfer capability between EDAM BAAs; and
- (c) revenues for wheeling-through volumes for EDAM BAAs that exceed the total imports/exports from the EDAM entity BAA.

33.26.1.2 Component 1: Short-Term Firm and Non-Firm Point to Point Transmission & Wheeling Access Charge (WAC) Revenues

EDAM recoverable TRR may only be associated with historical transmission sales to third parties, not sales to the EDAM Entity’s merchant function. The following non-firm point to point transmission products, which may have lower sales volumes, would also be eligible for historical TRR recovery and be included in the EDAM recoverable TRR recoverable through the EDAM: hourly non-firm point to point, daily non-firm point to point, weekly non-firm. Similarly, the following short-term firm point to point transmission products would also be considered EDAM eligible TRR: hourly firm point to point (if product is offered by the transmission provider), daily firm point to point, weekly firm point to point.

Foregone CAISO Participating Transmission Owner (PTO) wheeling access charge (WAC) revenues associated with third-party wheels through or exports from the CAISO BAA will be eligible for historical TRR recovery and be included in the EDAM recoverable TRR.

33.26.1.2.1 Calculating the EDAM Recoverable TRR

The EDAM recoverable TRR represents the total historical revenue at risk associated with certain transmission products, which would be eligible for recovery through the EDAM. For EDAM Transmission Service Providers operating under the OATT, the EDAM recoverable TRR is the historical transmission revenue requirement for short-term firm point to point (hourly, daily, weekly) and non-firm point to point transmission (hourly, daily, weekly) associated with sales to third parties (non-merchant).

For the CAISO, the EDAM recoverable TRR is the total historical WAC revenues associated with third parties. For the CAISO, WAC revenues associated with third parties represent 2-3% of the total TRR.

33.26.1.2.2 Calculating and Updating EDAM Recoverable TRR

Each EDAM Transmission Service Provider will calculate the EDAM recoverable TRR based on the transmission provider's average FERC-approved (or applicable regulatory authority-approved) transmission revenue requirement for non-firm and short-term firm point to point transmission services for the most recent three years. In addition, the proposal is to calculate the CAISO total BAA's EDAM recoverable TRR as the sum of PTO EDAM recoverable TRR amount. The CAISO PTO EDAM recoverable TRR amount shall be equal to the average FERC-approved transmission revenue balance account adjustment from wheeling third party transactions or the most recent three years.

EDAM recoverable TRR be reviewed and updated after two-years of participating in the EDAM. The total revenues recoverable through the EDAM consist of the difference between the EDAM recoverable TRR, which is based on historical values and the actual transmission revenues collected through transmission sales of the products eligible for recovery.

33.26.1.2.3 Consideration of a Bound to the EDAM Recoverable TRR

A bound, or limit, to the gross EDAM recoverable TRR based upon the EDAM transfer flows as compared to the total exports, EDAM and non-EDAM, of a BAA is under consideration. The EDAM TRR upper bound would limit the EDAM recoverable TRR by comparing EDAM transfer exports (energy transferred) out of the EDAM BAA and total exports (energy exported to EDAM and non-EDAM BAAs).

33.26.1.3 Component 2: Percentage of New Transmission Build Revenue Requirement

The second EDAM recoverable TRR component is associated with new transmission construction approved via applicable regulatory processes. New transmission facility upgrades that increase the transfer capability between EDAM BAAs would be recoverable based on the ratio of the non-firm and short-term firm point to point revenue requirement, associated with third-party sales on the new upgrade, to the total EDAM entity TRR.

33.26.1.4 Component 3: Recovery of Transmission Costs Associated With EDAM Wheeling Through Volumes Net of Imports/Exports

The third EDAM recoverable TRR component eligible for recovery is associated with wheels through an EDAM Entity's transmission system in excess of the total net imports/exports transfers of the EDAM BAA. In periods where this net difference occurs, the EDAM Entity will be compensated for the excess transmission use supporting net

wheels through its system. The volume of net wheels through the EDAM Entity transmission system, net of EDAM transfer imports/exports, would be compensated at the EDAM Entity's filed and approved non-firm hourly point to point transmission rate.

33.26.2 Allocating TRR Shortfall in the EDAM

Each EDAM entity will recover its actual EDAM recoverable TRR shortfall through an annual true-up opportunity at the end of each year, which can also be converted from an annual amount to a monthly amount for each entity across the year. Once the total EDAM recoverable TRR for the EDAM Area has been calculated, a rate that allows for recovery of the estimated TRR shortfall across the footprint would be derived. This rate will apply as an uplift assessed either to gross load across the footprint or to demand plus supply across the footprint. In allocating this uplift charge, the proposal is not to allocate an EDAM entity its own TRR revenue shortfall so its metered demand does not have to pay for its TRR cost recovery.

33.26.2.1 Allocation Method 1 - TRR Shortfall Allocated to Gross Demand

The CAISO would derive an annual EDAM entity-specific rate (which excludes its own TRR shortfall amount), that would be applied against the gross load (MWh) in the EDAM footprint. This rate would be derived by (1) allocating each BAA's TRR shortfall to the other BAAs in proportion to that BAA's gross load divided by the total EDAM gross load less gross load of the BAA whose TRR shortfall is being distributed, (2) calculating the total BAA TRR shortfall allocation, and then (3) dividing the total BAA TRR shortfall allocation by the BAA gross load. The proposal can consider whether the gross load amount should be based on the average of multiple years.

33.26.2.2 Allocation Method 2 - TRR Shortfall Allocated to Gross Demand Plus Supply

The CAISO would derive an annual BAA-specific rate based upon historical gross demand plus supply, which would provide a larger denominator across which to recover the forecasted TRR shortfall. The rationale supporting this approach is that both demand and supply benefit in an EDAM and thus should bear the costs associated with TRR recovery. Under this approach, the resulting rate would be applied as an uplift to both demand and supply on a monthly basis, and the revenue would contribute toward meeting the TRR shortfall.

33.26.2.3 Truing Up the Forecasted TRR Shortfall with Actual Shortfall

At the end of the year, each EDAM entity will also know its actual TRR shortfall based on the OATT sales conducted throughout the year, which would go towards reducing the TRR shortfall. Based on the actual TRR shortfall and the amount of revenue collected by each EDAM entity (based on one of the rate methods above), there may be a recovery surplus or a shortfall at the end of the year. Two options for addressing any surplus or shortfall are under consideration: (1) a year end true-up where the surpluses and shortfalls are settled; or (2) carrying over the shortfall or surplus into the following year's calculation of the forecasted TRR requirement, which would affect the BAA-specific rate calculated.

[The specific transmission service charges for EDAM Transfers will be further considered and set forth in Section 33.26 and Section 26]

33.27 CAISO Markets And Processes

The provisions of Section 27 that apply to the Day-Ahead Market will apply to EDAM Market Participants, except as provided in Section 33.27.

[The specific rules and procedures applicable to the Day-Ahead Market will be further considered and set forth in Section 33.27 similar to the structure of WEIM tariff Section 29.27]

Transitional Protective Measure: For a period of six months following the implementation of an EDAM Entity, the CAISO will apply an administrative price equal to the “last” economic bid price when the power balance constraint is relaxed in the scheduling run, instead of the parameter price that would otherwise apply. *[Note: This transitional protective measure, which is available in the WEIM, remains under CAISO consideration for application in the EDAM and is included here only for context.]*

33.28 Inter-SC Trades

EDAM Entity Scheduling Coordinators and EDAM Participating Resource Scheduling Coordinators may not submit inter-SC trades, and Section 28 will not apply to EDAM.

33.29 EDAM Relationship with the EIM

The provisions in Section 29 will apply to EDAM Market Participants to the extent of their terms as applied to EIM Market Participants.

[The relationship between the EDAM rules in Section 33 and the WEIM rules in Section 29 will be further considered and set forth in Section 33.29 to the extent they are not addressed in another subsection of Section 33]

33.30 Bid And Self-Schedule Submission For CAISO Markets

The provisions of Section 30 that are applicable to the Day-Ahead Market, as supplemented by Section 33.30, will apply to EDAM Market Participants.

33.30.1 Convergence Bidding

For all EDAM Entity Balancing Authority Areas with convergence bidding, Convergence Bidding Entities may submit Virtual Bids pursuant to Section 30.9 of the CAISO Tariff.

33.30.1 Convergence Bidding Transition Period

For their first year in the Day-Ahead Market, each EDAM Entity Balancing Authority Area will participate in the Day-Ahead Market without Virtual Bids in its Balancing Authority Area. At the end of their first year, EDAM Entities will have the option to extend the transition period for an additional year. Each EDAM Entity Balancing Authority Area may also elect to forego a transition period and commence Day-Ahead Market participation with Virtual Bids upon its one year anniversary of EDAM participation.

33.30.2 Suspension or Limitation of Convergence Bidding

The CAISO has the authority to suspend or limit convergence bidding pursuant to Tariff Section 7.9 and this authority will extend to EDAM Entity Balancing Authority Areas participating in the Day-Ahead Market with Virtual Bids.

[The specific supplemental bidding and self-schedule submission procedures applicable to the EDAM will be further considered and set forth in Section 33.30, particularly with respect to convergence bidding.]

33.31 Extended Day-Ahead Market (EDAM)

The Extended Day-Ahead Market (EDAM) will operate in accordance with the timelines, inputs and processes for the Day-Ahead Market in Section 31, as supplemented by provisions in Section 33.31 within the EDAM Area.

33.31.1 EDAM Resource Sufficiency Evaluation (EDAM RSE)

The EDAM RSE ensures the CAISO and EDAM Entities can meet their Balancing Authority obligations prior to participating in the Day-Ahead Market through a test that determines whether each participating BAA has sufficient supply and reserves to meet forecasted demand and uncertainty. Passing the EDAM RSE ensures that all resulting EDAM Transfers facilitate beneficial economic displacement among BAAs that pass, while failing the EDAM RSE imposes consequences.

33.31.1.1 Conducting the EDAM RSE

The binding EDAM RSE will occur at 10:00 a.m., prior to running the Day-Ahead Market, following the opportunity for EDAM Entities to receive advisory EDAM RSE results at 6:00 a.m. and 9:00 a.m., with further results available on demand. The demand forecast and variable energy supply forecast used in advisory runs will be taken from the last valid forecasts, and to lock all forecasts used in the EDAM RSE at 9:00 a.m.

Imbalance Reserve requirements will be calculated using a modified version of its balancing area ramp requirement (BARR) application, which will run at 6:00 a.m. and 9:00 a.m. The results obtained in the 6:00 a.m. advisory run can be used in all on-demand advisory runs by an EDAM entity prior to 9:00 a.m. The results at 9:00 a.m. will provide an updated uncertainty requirement that the ISO will use in the 9:00 a.m. advisory run and the final binding EDAM RSE run shortly after the day-ahead market submission process closes at 10:00 a.m., but immediately prior to running the day-ahead market.

33.31.1.2 Optimization

The EDAM RSE will optimally determine if an EDAM BAA can achieve a feasible operating schedule across the entire 24-hour horizon given its obligations using submitted bids. The application will not include transmission constraints and will model all of an EDAM BAA's load and supply on a single bus to perform a unit commitment optimization with cost minimization as the objective.

33.31.1.2.1 Resource deliverability in the EDAM RSE

The CAISO will monitor the results of the EDAM RSE to assess whether capacity that is regularly shown is stranded and undeliverable. If monitoring highlights concerning volumes or repeated showings of supply that was ultimately undeliverable, the CAISO would evaluate revisions to EDAM RSE deliverability.

33.31.1.3 EDAM RSE Requirements

The EDAM RSE will test whether an EDAM Entity can meet its BAA requirements in each of the 24 hours of the Day-Ahead Market, including the flexibility to ramp between these requirements in each hour. The EDAM Entity BAA requirements that will be tested include forecasted demand, imbalance reserves, flexibility, reliability capacity, and ancillary services.

33.31.1.4 EDAM RSE Inputs

The EDAM RSE will utilize Bids and Self-Schedules to determine feasible operating schedules, assuming all owned and contracted resources are available and including third party EDAM Participating Resources within the BAA that are with submitted Bids into the EDAM but not otherwise Self-Scheduled.

33.31.1.4.1 Resource Specific Energy Bids – Gas Optimization

The CAISO will share the advisory D+2 market results with EDAM Entities that request the information for their specific gas generators no later than 05:00 of the day-ahead market run; i.e., 05:00 on D+1.

33.31.1.4.2 Resource Specific Energy Bids – Hydro Operation

EDAM Entities can manage their hydro resources through daily energy limits, which set a limitation on the total discharge of individual resources, and hourly energy bids, which inform minimum discharge obligations and availability to discharge. Participants can use these constraints in combination to meet a hydro project's underlying requirements and efficiently schedule their resource through the day-ahead market process. The CAISO will facilitate hydro resource modeling that allows multiple related resources comprising an aggregated resource to function as a single resource.

33.31.1.4.3 Variable Energy Resource (VER) Supply Bids

The CAISO will create default supply bids for the difference between the bid in and forecast quantity for use exclusively in the EDAM RSE. EDAM Participating Resource Scheduling Coordinator for each VER must also submit RUC availability bids up to its variable energy forecast.

33.31.1.4.4 Non-resource Specific Supply

EDAM BAA day-ahead supply plans are comprised of resource or load modification programs that cannot explicitly be modeled in the EDAM. This circumstance generally arises when the source or transmission is unknown in the day-ahead timeframe or the load modification program does not conform to existing demand response models developed by the ISO. The proposal is to account for these resources in the EDAM RSE as described below.

33.31.1.4.4.1 WSPP-C and CAISO RA Imports (Firm Energy Contracts)

Firm energy contracts will count towards the EDAM RSE, including WSPP-C arrangements, CAISO resource adequacy imports, and similar forward contracted supply. All source-specific forward contracted supply will count towards the EDAM RSE and can be modeled in the EDAM. When the source cannot be identified, assumptions will be made regarding the source of the supply. To the extent forward contracted supply is offered to the CAISO through an intertie bid, the ISO will provide functionality to associate that intertie bid with a forward contract for purposes of counting in the EDAM RSE.

33.31.1.4.4.2 Day-Ahead Intertie Bids at CAISO Interties

Economic supply offers at CAISO EDAM External Interties will count towards the EDAM RSE (i.e., "intertie bids"), if those supply offers are associated with a forward contract with a LSE within the CAISO BAA or otherwise have a reasonable expectation of delivery.

33.31.1.4.4.3 Load Modification/Demand Response Programs

EDAM Entity BAA may represent demand response and load modification programs through a demand forecast adjustment similar to that used in the EIM. The demand forecast adjustment represents an expectation the EDAM BAA will utilize these programs in real-time. The volume of load that can be bid into the EDAM to the load forecast minus the demand response adjustments will be limited.

33.31.1.5 Bid Range Trading

EDAM BAA's can make hourly residual supply and firm transmission available for usage by any neighboring EDAM BAA for a preset price, which will offset obligations in the EDAM RSE.

33.31.1.6 Consequences for Failure to Pass the EDAM RSE

Capacity shortfalls identified in the EDAM RSE will be cured, if possible, in the Day-Ahead Market through a surcharge from surplus supply Bids offered for this purpose. The surcharge would be based on the maximum hourly deficiency as determined by the EDAM RSE application. Using the maximum hourly supply deficiency, the EDAM application will calculate an administrative surcharge using the maximum of the Mid-C or Palo Verde day-ahead hub price for an on-peak block of energy, for the entire multi-hour block, for each MW the BAA has been identified as being short. The administrative surcharge will be based on a 16-hour block product.

If the IFM can fully resolve the deficiency and cure the EDAM BAA through the market optimization, the EDAM BAA would be treated as a member of the pool of passing BAAs as the EDAM results are used in the WEIM RSE. If the market is unable to resolve the entire deficiency, the EDAM BAA would retain the ability to participate in the pool of passing BAAs if, by the STUC horizon ending in the hour of their shortage, it can backfill the deficiency with supply.

33.31.1.7 EDAM Area Pooled WEIM RSE

All BAAs in the EDAM Area that pass the EDAM RSE will be tested as a pool in the WEIM RSE.

33.31.1.7.1 Failure of the EDAM Area Under a Pooled Approach

Two options are under consideration: (1) the pooled EDAM footprint as a whole remains responsible for curing any shortfall in the WEIM RSE, and (2) , the footprint would be broken up and each BAA would be tested individually.

33.31.1.7.2 Diversity Benefit and Linkages to WEIM RSE

The WEIM RSE would considering all day-ahead awards, imbalance reserves, and reliability capacity prior to determining if it needs to test an individual EDAM BAA for WEIM resource sufficiency. Each participating BAA is expected to address any intra-day outages that render any of the capacity used to back EDAM schedules prior to the running of the WEIM RSE.

33.31.1.7.3 Hybrid diversity benefit and pooled WEIM RSE

The WEIM RSE would hold a portion of the diversity benefit from allocation and reflect this quantity as additional global procurement of imbalance reserves for the EDAM Area to use as a whole. The CAISO would have the opportunity to configure this quantity and provide the EDAM BAAs a collective mechanism to adjust imbalance reserve requirements dynamically.

33.31.1.8 Management of Supply in Excess of RSE Requirements

Two mechanisms for how supply above what is needed by the CAISO to pass the EDAM RSE are being considered: (1) implement a mechanism like the available balancing capacity used in the WEIM for the CAISO to use in the EDAM, and (2) apply a net EDAM export transfer limit that would permit EDAM entities to identify a limit on the amount of EDAM net export transfers in the day-ahead market during a defined period.

33.31.2 Day-Ahead Market

EDAM Entity Scheduling Coordinators and EDAM Participating Resource Scheduling Coordinators will submit schedules and other necessary information to the CAISO for use in the Day-Ahead Market.

33.31.2.1 Integrated Forward Market (IFM)

Based on scheduling coordinators' hourly bids (self-schedules or economic bids) for supply and demand resources and for imports and exports at interties between external BAAs and EDAM BAAs, the IFM balances supply and demand, produce hourly unit commitment and energy schedules, and procure imbalance reserves and reliability capacity.

33.31.2.1.1 IFM Unit Commitment

IFM unit commitment calculates a resource's hourly optimal unit commitment status (on/off) considering the resource's bids (startup, minimum load, and energy) in conjunction with initial commitment status before the start of the trading day and registered unit commitment constraints such as minimum up/down times, maximum number of daily startups, and other operating characteristics.

33.31.2.1.2 Energy Schedules

The IFM produces hourly day-ahead energy schedules for all resources with energy bids and self-schedules, including load resources, as well as virtual supply and demand. Generating resources that are not committed in the IFM will have 0 MW energy schedules in the relevant hour. A resource may submit both an economic energy bid and self-schedule for the same hour. In such cases, the economic energy bid must be for the operating range above the self-schedule.

33.31.2.1.3 Imbalance Reserves

Resources that are dispatchable on a 15-minute basis can bid to provide imbalance reserves in the upward and downward direction. Resources receiving an imbalance reserve award must provide economic energy bids in the fifteen-minute market for the amount of the award.

The IFM procures imbalance reserves respecting transmission constraints to ensure the capacity is deliverable and co-optimizes that procurement with energy, and could also do so for EDAM BAA ancillary services should that be adopted in the future.

The CAISO procures imbalance reserves sufficient to meet an hourly uncertainty requirement, which is based on historical forecast deviations between the day-ahead and real-time markets. The CAISO reduces the uncertainty requirement in each BAA by a pro rata allocation of the EDAM diversity benefit. The EDAM diversity benefit is the positive difference between the sum of the uncertainty requirements of all individual BAAs in EDAM (without accounting for a diversity benefit) and the uncertainty requirement for the entire EDAM footprint.

33.31.2.1.4 IFM Transfers

EDAM transfers involve the exchange of energy, imbalance reserves, reliability capacity, demand obligations, and ancillary services requirements between BAAs in the EDAM footprint. In the IFM, the market would enforce the scheduling limit for each transfer.

33.31.2.2 Residual Unit Commitment (RUC)

RUC runs after the IFM produces energy schedules and ancillary service awards and results in awarding resources RCU and RCD.

33.31.2.2.1 Offers to RUC

- RUC procures RCU and RCD from resources offering reliability capacity bids.
- All resources offering energy bids in the IFM must submit bids for reliability capacity in the RUC at the same quantity as their energy bid plus ancillary service self-provision. Submission of reliability capacity bids is otherwise optional for resources.
- Imports.
 - Imports from non-EDAM BAAs can provide RCU and RCD at CAISO interties. The corresponding intertie schedule must be tagged after RUC with a transmission profile equal to the sum of the day-ahead energy schedule, plus the reliability capacity award, if any.
- Exports.
 - Exports to non-EDAM BAAs can also provide reliability capacity up at ISO interties, with the obligation to provide a decremental energy bid to dispatch down the export schedule in the FMM if needed.

33.31.2.2.2 Receiving an RCU & RCD Award

- A resource may receive a reliability capacity award for an hour in only one direction, up or down.
- An RCU or RCD award obligates a resource to provide an economic offer in the real-time market incremental or decremental, respectively, to its IFM award.
- The ISO will pay all resources receiving a reliability capacity up or down award the locational marginal price for reliability capacity up or down, respectively.
- RUC issues binding start-up instructions for resources with a startup time longer than six hours and advisory start-up instructions for all other resources.
- RUC may adjust the commitment of multi-stage generators (MSG) by transitioning them to a different configuration, either higher or lower, than the configuration that cleared the IFM.
- Commitment costs due to binding commitment decisions in RUC are eligible for BCR subject to certain eligibility requirements.

33.31.2.3 Determining RUC Awards

- The EDAM procures RCU and RCD as needed based on the difference between the amount of physical energy that clears the IFM in relation to each EDAM BAA's load forecast.
- RUC will use transfer capacity that remains unscheduled after the IFM or counter-flow on energy transfers that clear the IFM.
- The RUC optimization will consider transmission constraints when scheduling reliability capacity, resulting in locational marginal prices (LMP).
- The net of all reliability capacity awards in an EDAM BAA will be in the direction of the total RUC requirement, although some resources in an EDAM Entity can have RCU awards and others RCD awards.

33.31.2.3 External Resource Participation

Resources outside of an EDAM Entity may participate in the EDAM subject to certain

restrictions. Those restrictions depend on whether the resource is imported into the EDAM at an external intertie with the CAISO as opposed to an external intertie with another EDAM Entity.

33.31.2.3.1 EDAM Entity Balancing Authority Area EDAM External Interties

External resources that would be imported into an intertie with an EDAM Entity other than the CAISO are permitted if the resource is pseudo-tied into an EDAM Entity, dynamically scheduled into an EDAM entity, or are self-scheduled into the EDAM. Economic bids for non-source specific resources are not permitted for external interties into an EDAM Entity other than the CAISO.

33.31.2.3.2 CAISO Balancing Authority Area External Interties

External resources that would be imported into the EDAM at an external intertie with the CAISO are permitted for resources pseudo-tied or dynamically scheduled into the CAISO. Imports from non-source specific resources into the EDAM at an external intertie with the CAISO are also permitted and may be self-scheduled or economically bid into the EDAM

33.31.2.3.3 Exports from the EDAM Area

An EDAM Entity may facilitate energy exports from its BAA out of the EDAM Area pursuant to that EDAM Entity's OATT or, in the case of the CAISO, this CAISO Tariff.

[The specific EDAM Resource Sufficiency Evaluation and Day-Ahead Market procedures and requirements applicable to the CAISO and EDAM Market Participants will be further considered and set forth in Section 33.31 similar to the content and structure of the WEIM tariff Section 29.34]

33.32 Greenhouse Gas

The EDAM will implement a resource-specific GHG design as an extension of the WEIM design, using resource specific bid adders to optimize the attribution of EDAM Transfers into a GHG region. A GHG Regulation Area will reflect the nodes within a state jurisdiction that has priced GHG emissions as part of a state carbon reduction law or regulation.

[Note: Several of these proposed GHG rules will require changes to Section 29.32, including the use of GHG Regulation Areas instead of balancing authority areas to identify GHG Transfers and secondary dispatch constraints.]

33.32.1 Bidding Procedures

EDAM Participating Resource Scheduling Coordinators may submit cost-based hourly bid adders to offer output from participating resources outside of a specific GHG Regulation Area to serve demand within that GHG Regulation Area. If an EDAM Participating Resource located in an EDAM Entity Balancing Authority Area outside of a GHG Regulation Area does not submit a bid adder for a specific GHG Regulation Area, the CAISO will assume that the EDAM Participating Resource will not be selected for delivery to that specific GHG Regulation Area. The CAISO will calculate a maximum daily bid adder for each EDAM Participating Resource based on the resource's highest incremental heat rate, the applicable Greenhouse Gas Allowance Price, and the EDAM Participating Resource's emission rate. The CAISO will also provide for an option to negotiate a maximum daily bid adder.

33.32.2 Market Clearing

The EDAM will take into account EDAM bid adders in selecting Energy produced by EDAM

Participating Resources located outside of a GHG Regulation Area for import into that GHG Regulation Area up to the associated MW quantity included in the EDAM bid adder, but will not take into account EDAM bid adders when selecting EDAM Participating Resources to serve Load outside of the applicable GHG Regulation Area.

The EDAM will limit the maximum GHG bid adder MW quantity of an EDAM Participating Resource to a value equal to the EDAM Participating Resource's dispatchable bid range between the GHG Reference Pass and the EDAM Participating Resource's effective upper economic Bid, considering any applicable derates and ancillary services capacity reservations, for the relevant operating hour. The GHG Reference Pass is an optimal market run identical to the IFM, without GHG bid adders, *i.e.* without GHG transfers into GHG Regulation Areas. The GHG Reference Pass approximates how EDAM Entities with Load outside a GHG Regulation Areas will serve that Load with EDAM Participating Resources.

The EDAM shall not dispatch EDAM Participating Resources outside a GHG Regulation Area for delivery into that GHG Regulation Area if the MW quantity included in the GHG bid adder for that GHG Regulation Area is zero.

The CAISO will allocate EDAM transfers into the GHG Regulation Area optimally to EDAM Participating Resource Scheduling Coordinators based on their composite Energy bid and bid adder from lowest to highest and will distribute Greenhouse Gas Emission Cost Revenues to EDAM Participating Resources pursuant to that allocation. The marginal resource's GHG bid adder for a specific GHG Regulation Area will set the GHG price for that GHG Regulation Area.

33.32.3 Additional Secondary Dispatch Constraints

The CAISO will apply an hourly net export constraint for EDAM Entity Balancing Authority Areas. This constraint will not allow aggregate attribution of EDAM Transfers to EDAM Participating Resources supporting Load in a GHG Regulation Area to exceed the net export for that hour. If the EDAM Entity Balancing Authority Area is a net importer in that hour, the CAISO will not attribute EDAM Transfers to EDAM Resources in that Balancing Authority Area to support Load in a GHG Regulation Area.

33.32.4 Data Availability

The CAISO will notify the EDAM Participating Resource Scheduling Coordinator through the Dispatch Instruction of the megawatt quantity of any Energy of an EDAM Participating Resource located in an EDAM Entity Balancing Authority Area outside of a specific GHG Regulation Area that is deemed to have been imported into that GHG Regulation Area as a result of the market clearing of the EDAM. The CAISO will report to each EDAM Participating Resource Scheduling Coordinator the portion of an EDAM Resource's Day-Ahead Energy Schedule that supports a transfer into a GHG Regulation Area.

[The specific GHG procedures and requirements of EDAM Market Participants will be further considered and set forth in Section 33.32 similar to the content and structure of the WEIM tariff Section 29.32 with reference to Section 29.32 as appropriate]

33.33 [Not Used]

Section 33 is not used in the CAISO Tariff.

[Section 33 will contain the EDAM rules and remain "not used" in Section 33.33]

33.34 [Not Used]

Section 34 contains the Real-Time Market Rules, including how the Day-Ahead Market results are incorporated into the Real-Time Market.

[The relationship between the Real-Time Market rules in Section 34 and the EDAM rules in Section 33 will be further considered and set forth in Section 33.34 to the extent they are not addressed in another subsection of Section 33, although this relationship may be more appropriately addressed in section 33.29]

33.35 Market Validation And Price Correction

The market validation and price correction provisions of Section 35 apply to the EDAM.

[The specific market validation and price correction procedures applicable to the EDAM will be further considered and set forth in Section 33.35 similar to the content and structure of the WEIM tariff Section 29.35]

Transitional Protective Measure: For a period not to exceed 90 days after implementation of an EDAM Entity, the time allowed for the CAISO's correction of Day-Ahead Market prices will be 10 Business Days.

33.36 [Not Used]

Congestion Revenue Rights are not included in the EDAM and the provisions of Section 36 do not apply.

[Hold open for specific rules associated with Congestion Revenue Rights should further proposals implement their auction, allocation and administration through the EDAM, meaning until such time the provisions of Section 36 will not apply to the EDAM]

33.37 Rules Of Conduct

All EDAM Market Participants will be subject to the provisions of Section 37 except for Section 37.2.

[The specific rules of conduct applicable to the EDAM will be further considered and set forth in Section 33.37 similar to the content and structure of the WEIM tariff Section 29.37]

33.38 Market Monitoring

The CAISO Department of Market Monitoring will provide market monitoring services for the participation of EDAM Market Participants in the Day-Ahead Market, including – (a) monitoring markets administered by the CAISO for actual or potential ineffective market rules, market abuses, market power, violations of FERC or CAISO Market rules prohibiting provision of false information, or market manipulation; (b) coordinating with CAISO business units that review and monitor the performance and quality of the CAISO Markets; (c) providing recommendations about potential market design flaws or ineffective market rules to the CAISO and FERC; and (d) referring a matter to FERC if the Department of Market Monitoring determines there is sufficient credible evidence that a violation of FERC or CAISO Market rules has occurred.

[The specific market monitoring procedures applicable to the EDAM will be further considered and set forth in Section 33.35 similar to the content and structure of the WEIM tariff Section 29.32]

33.39 Local Market Power Mitigation

The CAISO will apply the Local Market Power Mitigation procedures set forth in CAISO Tariff Section 39.7 to the EDAM, including EDAM Transfer constraints into an EDAM Entity Balancing Authority Area on an EDAM Internal Intertie, except as provided in Section 33.39, and using the methods and standards for setting default energy bids for LMPM in the EDAM set forth in

CAISO Tariff Section 39.7.

[The specific market power mitigation rules and procedures and default energy bid methods and standards applicable to the EDAM will be further considered and set forth in Section 33.39 similar to the content and structure of the WEIM tariff Section 29.32]

33.40 [Not Used]

The EDAM does not include resource adequacy requirements, and Section 40 will not apply to EDAM Market Participants.

[Consider EDAM specific issues that may need to be addressed and do not otherwise fit well within the context of another subsection of Section 33]

33.41 [Not Used]

The EDAM does not include procurement of RMR generation and Section 41 will not apply to EDAM Market Participants.

[Consider EDAM specific issues that may need to be addressed and do not otherwise fit well within the context of another subsection of Section 33]

33.42 [Not Used]

The EDAM does not enforce generation planning reserve criteria and Section 42 will not apply to EDAM Market Participants.

[Consider EDAM specific issues that may need to be addressed and do not otherwise fit well within the context of another subsection of Section 33]

33.43 [Not Used]

The EDAM does not include the capacity procurement mechanism, and Section 43 will not apply to EDAM Market Participants.

[Consider EDAM specific issues that may need to be addressed and do not otherwise fit well within the context of another subsection of Section 33]

33.44 Flexible Ramping Product

The CAISO will procure flexible ramping capability in the EDAM Area as set forth in Section 44.

[The specific flexible ramping product rules and procedures applicable to the EDAM will be further considered and set forth in Section 33.44 as appropriate.]

Potential Changes to Other CAISO Tariff Sections and Appendixes

11. California ISO Settlement *[changes to EDAM Area charge allocations between the Balancing Authority Areas may be considered in Section 11 to the extent the charges apply globally, which is similar to how some WEIM charges are allocated]*

26. Transmission Rates and Charges *[changes may be considered to recover historical transmission revenue associated with EDAM transfers on CAISO interties]*

Appendix A

Potential New Definitions

Extended Day-Ahead Market (EDAM)
EDAM Administrative Charge
EDAM Area
EDAM Available Balancing Capacity
EDAM Demand
EDAM Entity
EDAM Entity Agreement
EDAM Entity Implementation Date
EDAM Entity Scheduling Coordinator
EDAM Entity Scheduling Coordinator Agreement
EDAM External Intertie
EDAM Implementation Agreement
EDAM Internal Intertie
EDAM Intertie
EDAM Manual Dispatch
EDAM Market Participant
EDAM Measured Demand
EDAM Participating Resource
EDAM Participating Resource Agreement
EDAM Participating Resource Scheduling Coordinator
DAIM Participating Resource Scheduling Coordinator Agreement
EDAM Resource
EDAM Resource Sufficiency Evaluation
EDAM Transfer
EDAM Transmission Service Information
EDAM Transmission Service Provider
GHG Reference Pass
GHG Regulation Area

Appendix A

Potential Amended Definitions

Aggregate Capability Constraint [*revise to include EDAM Participating Resources*]
Base Model Market [*revise to include EDAM Entity and EDAM Entity Balancing Authority Area*]
CAISO Metered Entity [*revise to include EDAM Participating Resources*]

CAISO Markets [*revise to include EDAM*]
Co-located Resources [*revise to include EDAM Participating Resources*]
Connected Entity [*revise to include EDAM Transmission Service Provider*]
Curtailed Demand [*revise to include EDAM Area*]
Contingency [*revise to include EDAM Balancing Authority Area*]
EIM Bid Adder [*revise to be inclusive of EDAM and other state GHG regulatory authorities*]
End-Use Customer or End-User [*revise to include EDAM Transmission Service Provider*]
Generating Unit [*revise to include EDAM Balancing Authority Area*]
Greenhouse Gas Emission Cost Revenue [*revise to include EDAM Participating Resources*]
Interchange [*revise to include EDAM Balancing Authority Area*]
Interchange Schedule [*revise to include EDAM Balancing Authority Area*]
Marginal Greenhouse Gas Cost [*revise to include EDAM Participating Resources*]
Market Participant [*revise to include EDAM Market Participants*]
Net Imbalance Energy Export [*revise to include EDAM Balancing Authority Area*]
Node [*revise to include EDAM Area*]
Point of Interconnection [*revise to include EDAM Participating Resources*]
Point(s) of Delivery (POD) or Withdrawal [*revise to include EDAM Area*]
Point(s) of Receipt (POR) or Injection [*revise to include EDAM Area*]
Participating Resource [*revise to include EDAM Participating Resources*]
Reference Bus [*revise to include EDAM Area*]
Scheduling Coordinator [*revise to include EDAM Scheduling Coordinators*]
Scheduling Coordinator Metered Entity [*revise to include EDAM Entity or EDAM Participating Resources*]
State Estimator [*revise to include EDAM Entity an EDAM Entity Balancing Authority Area*]
System Resource [*revise to include EDAM Balancing Authority Area*]

Appendix B

Potential New Pro Forma Agreements

EDAM Entity Agreement
EDAM Entity Scheduling Coordinator Agreement
EDAM Implementation Agreement
EDAM Participating Resource Agreement
EDAM Participating Resource Scheduling Coordinator Agreement

Appendix C

Potential Changes to the LMP Formulation

LMP Formulation, Marginal Energy Cost, Marginal GHG Cost, Marginal Cost of Congestion [*will be reviewed following the final market design*]

Appendix F

Potential Changes to the Rate Schedules

Transmission Revenue Requirement (TRR) Formulation, EDAM Fee Calculation [*will be reviewed following the final market design*]